INTERNATIONALSEARCHREPORT

International application No. PCT/JP2005/001314

A. CLASSIFICATIONOFSUBJECTMATTER			
Int.Cl?.	HO1M8/02, HO1M8/10, HO1M8/24		
According to International Patent Classification (IPC) or to both national classification and IPC			
B. FIELDS SEARCHED			
Minimum do	cumentation searched (classification system followed by c	lassification symbols)	·
Int.Ci ⁷ H01M8/02, H01M8/10, H01M8/24			
		tout that and decomposits are included in th	o fields searched
	on searched other than minimum documentation to the ex Utility Model Gazette 1922-1996, Japanes		
Applicati	ons 1971-2005, Japanese Registered Utili	ty Model Gazette 1994-2005, Ja	apanese Gazette
Containing the Utility Model 1996-2005 Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)			
WPI/L			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.
×	JP 2002-329508 A(Nissan Mot	or Co. Ltd.)	1
, 25	2002.11.15, claims, Fig.2		_
Y	•		5,6
A		•	2-4,7-9
Y	JP 2003-297387 A (TDK Corpor	eation) 2003.10.17.	5
1	claims, Fig.6 (Family:none)	<u>-</u>	
Y	JP 2002-50390 A (Sony Corpor		6
	claims, Fig.2 (Family:none)		
		•	•
			•
			•
			•
			•
Furthe	or documents are listed in the continuation of Box C.	See patent family annex.	
* Special "A" docum	or documents are listed in the continuation of Box C. categories of cited documents: ent defining the general state of the art which is not	See patent family annex. "T" later document published after the priority date and not in conflict with	the application but cited to
* Special "A" docum conside "E" earlier	or documents are listed in the continuation of Box C.	See patent family annex. "T" later document published after the priority date and not in conflict with understand the principle or theory used to the considered novel or cannot be	the application but cited to nderlying the invention e claimed invention cannot considered to involve an
* Special "A" docume consider "E" earlier nations "L" docume	categories of cited documents: ent defining the general state of the art which is not cred to be of particular relevance application or patent but published on or after the inter- il filing date ent which may throw doubts on priority claim(s) or which	See patent family annex. "T" later document published after the priority date and not in conflict with understand the principle or theory used to the considered novel or cannot be inventive step when the document is	the application but cited to nderlying the invention e claimed invention cannot considered to involve an taken alone
* Special "A" docum conside "E" earlier nations "L" docume is cited special "O" docume	cr documents are listed in the continuation of Box C. categories of cited documents: ent defining the general state of the art which is not cred to be of particular relevance application or patent but published on or after the inter-	See patent family annex. "T" later document published after the priority date and not in conflict with understand the principle or theory us document of particular relevance; the be considered novel or cannot be inventive step when the document is "Y" document of particular relevance; the be considered to involve an inventive combined with one or more other.	the application but cited to inderlying the invention e claimed invention cannot considered to involve an a taken alone e claimed invention cannot e step when the document is er such documents, such
* Special "A" docum conside "E" earlier nations "L" docum is cited special "O" docum means "P" docum	categories of cited documents: ent defining the general state of the art which is not cred to be of particular relevance application or patent but published on or after the inter- il filing date ent which may throw doubts on priority claim(s) or which to establish the publication date of another citation or other reason (as specified) ent referring to an oral disclosure, use, exhibition or other cent published prior to the international filing date but later	See patent family annex. "T" later document published after the priority date and not in conflict with understand the principle or theory u "X" document of particular relevance; the be considered novel or cannot be inventive step when the document is "Y" document of particular relevance; the be considered to involve an inventive combined with one or more other combination being obvious to a pers	the application but cited to inderlying the invention e claimed invention cannot considered to involve an a taken alone e claimed invention cannot estep when the document is er such documents, such on skilled in the art
* Special "A" docume consider "E" earlier nations "L" docume is cited special "O" docume means "P" docume than the	categories of cited documents: ent defining the general state of the art which is not exed to be of particular relevance application or patent but published on or after the inter- diffiling date ent which may throw doubts on priority claim(s) or which to establish the publication date of another citation or other reason (as specified) ent referring to an oral disclosure, use, exhibition or other	See patent family annex. "T" later document published after the priority date and not in conflict with understand the principle or theory u"X" document of particular relevance; the be considered novel or cannot be inventive step when the document is "Y" document of particular relevance; the be considered to involve an inventive combined with one or more other combination being obvious to a pers	the application but cited to inderlying the invention e claimed invention cannot considered to involve an a taken alone e claimed invention cannot estep when the document is er such documents, such on skilled in the art
* Special "A" docume consider "E" earlier nations "L" docume is cited special "O" docume means "P" docume than the	categories of cited documents: ent defining the general state of the art which is not ered to be of particular relevance application or patent but published on or after the inter- diffing date ent which may throw doubts on priority claim(s) or which to establish the publication date of another citation or other reason (as specified) ent referring to an oral disclosure, use, exhibition or other ent published prior to the international filing date but later e priority date claimed	"T" later document published after the priority date and not in conflict with understand the principle or theory u"X" document of particular relevance; the be considered novel or cannot be inventive step when the document is "Y" document of particular relevance; the be considered to involve an inventive combined with one or more other combination being obvious to a persuance of the same pate.	the application but cited to inderlying the invention e claimed invention cannot considered to involve and taken alone e claimed invention cannot estep when the document is er such documents, such on skilled in the art on the transity
* Special "A" docume consider "E" earlier nations "L" docume is cited special "O" docume means "P" docume than the special specia	categories of cited documents: ent defining the general state of the art which is not ered to be of particular relevance application or patent but published on or after the inter- il filing date ent which may throw doubts on priority claim(s) or which to establish the publication date of another citation or other reason (as specified) ent referring to an oral disclosure, use, exhibition or other ent published prior to the international filing date but later e priority date claimed actual completion of the international search	"T" later document published after the priority date and not in conflict with understand the principle or theory u "X" document of particular relevance; the be considered novel or cannot be inventive step when the document is "Y" document of particular relevance; the be considered to involve an inventive combined with one or more other combination being obvious to a persual "&" document member of the same pate."	the application but cited to inderlying the invention e claimed invention cannot considered to involve and taken alone e claimed invention cannot estep when the document is er such documents, such on skilled in the art int family cherort
* Special "A" docume consider "E" earlier nations "L" docume is cited special "O" docume means "P" docume than the Date of the second in the s	categories of cited documents: ent defining the general state of the art which is not ered to be of particular relevance application or patent but published on or after the inter- al filing date ent which may throw doubts on priority claim(s) or which to establish the publication date of another citation or other reason (as specified) ent referring to an oral disclosure, use, exhibition or other ent published prior to the international filing date but later e priority date claimed actual completion of the international search 09.03.2005	"T" later document published after the priority date and not in conflict with understand the principle or theory u"X" document of particular relevance; the be considered novel or cannot be inventive step when the document is "Y" document of particular relevance; the be considered to involve an inventive combined with one or more other combination being obvious to a persuance of the same pate. Date of mailing of the international search 29.03.2	the application but cited to inderlying the invention e claimed invention cannot considered to involve and taken alone e claimed invention cannot estep when the document is er such documents, such on skilled in the art on the transity